

APPROXIMATE SCALE: 1" = 1000'

GENERAL NOTES

- .. Wetlands were delineated by Foresight Land Services on December 1, 2021, And field surveyed by Foresight Land Services on December 22 and 23, 2021
- . Establishing elevation for Topographic Survey was performed by Foresight Land Services on December 22 and 23, 2021, using Electronic Total Station with Data Collector.
- 3. Plan was compiled on a PC-based computer using AutoCAD Civil 3D 2018.
- 4. Horizontal Datum is based upon plan entitled "Plan of Land in Becket (Berkshire Co), MA prepared For Adrienne Metcalf, by Hilltown Land Surveys dated June 4, 2021" and filed in Berkshire Middle District Registry of Deeds,
- 5. Vertical Datum is assumed. A temporary benchmark was established on site, TBM, Railroad Spike set in utility pole 34/33, Elevation = 65.19'.
- 6. The locations and information about underground pipes, utilities or other structures are compiled from available record data and visible field evidence and are not represented as being exact or complete. Prior to beginning excavation, the excavator shall give adequate advance notice to the Dig Safe Center, the municipal and/or state Public Works Department, and private utility companies, to allow for field location of facilities in the vicinity.
- 7. If Contractor observes any field conditions which vary significantly from what is shown on these plans, the contractor shall immediately notify the Owner and Engineer for resolution of the conflicting information.
- 8. The Contractor shall record tie measurements, depths, dimensions, materials, field conditions and other pertinent data about all underground pipes, utilities and structures encountered during the work, both existing and constructed. Contractor shall submit Record drawings with this information to the Owner and Engineer prior to
- 9. Contractor shall immediately report any damage to existing pipes, utilities, or structures to the Owner and Engineer, and obtain directions as to repair, replacement or abandonment.

CONSTRUCTION-PHASE MEASURES FOR CONTROL OF SEDIMENT AND EROSION AND PROTECTION OF WETLANDS

- 1. Do not disturb existing vegetated areas far in advance of construction. Limit disturbance only to the extent and duration required for imminent construction activities. Retain and protect natural vegetation and vegetative filter strips
- 2. Temporary vegetation or a heavy mat of wood chips shall be established on all earth stockpiles or stripped areas which will be bare for more than two months and less than 12 months. Such vegetation shall consist of a commercial conservation seed mixture with a high percentage of annual rye grass. Permanent herbaceous cover
- shall be established on areas which would be bare more than 12 months. A heavy mat of straw mulch, wood chips, erosion control netting, mesh or blanket matting shall be used on disturbed areas if vegetation cannot be established due to season or on-going construction process, or if otherwise required.
- 4. Silt fence or carefully positioned staked straw bales shall be installed along the downhill edge of disturbed earthwork areas where required to control erosion and sedimentation.
- 5. Water courses, including intermittent drainage swales, shall be protected from siltation by silt fence barriers or carefully positioned staked straw bale check dams.
- 6. Sediment traps shall be constructed downhill of disturbed areas and upstream of watercourses and/or wetlands. Trapped sediments shall be removed from the basins during the construction period before they become 50% full to prevent sediment from being transported downhill. Dispose of sediments in on-site upland disposal areas, properly graded, seeded and mulched.
- 7. Permanent drainage control structures shall be installed as early as possible in the construction process. Drains shall be provided with drain inlet sediment filters
- 8. Do not fuel construction equipment or store fuel or other potential contaminants
- within 100 feet of water courses or wetlands. 9. Precast concrete shall be washed down at the manufacturer's plant. Cast-in-place concrete within 100 feet of watercourses/wetlands shall be placed so as to minimize runoff of stormwater from fresh concrete, through use of sumps, diversions, etc. Concrete trucks and equipment contaminated with fresh concrete shall not be washed down within 100 feet of wetlands.
- 10. Strictly adhere to all general and special conditions of any Wetlands Protection Act Permits, including plans, details, construction sequencing outline, and other applicable requirements.

SITE DATA Data provided by Becket, MA Zoning Bylaw Amended: March 11, 2019 Zone: Indoor Cultivation **Dimensional Requirements:** Min. Lot Dimensions SITE DATA Area = 2 Acres Min. Setbacks: Data provided by Becket, MA = 50 FT Front Zoning Bylaw Side = 20 FTAmended: March 11, 2019 = 20 FT Rear Zone: Residential/Agricultural Dimensional Requirements: SITE DATA Min. Lot Dimensions Data provided by Becket, MA = 200 FT Min. Lot Frontage Zoning Bylaw = 160 FT Amended: March 11, 2019 Min. Lot Width Zone: Outdoor Cultivation Min. Setbacks: Dimensional Requirements: = 40 FT Min. Lot Dimensions Front = 20 FTSide Area = 5 Acres Rear = 20 FTMin. Setbacks: Front = 100 FTMax. Building Side = 100 FT= 40 FT = 50 FTHeight Rear

General Notes About Compiled Site Plan

Portions of the base map is compiled

from available sources and is not the

Geographic and Environmental

Information, Commonwealth of

direct observation.

and change.

result of a recent field survey. Compiled

information includes MassGIS (Office of

Massachusetts Office of Environmental

and other published sources. Property

lines are compiled from deeds, record

are from available plans, records and

All compiled information is approximate

only and is subject to field verification

Affairs) Aerial Photos, FEMA flood maps,

surveys and assessors mapping. Utilities

SPECIAL PERMIT PLAN SET TETRAHYDRA AGTEK LLC

509 QUARRY ROAD

BECKET, MA.



AERIAL VIEW SITE PLAN NOT TO SCALE

<u>INDEX</u>

SHEET NO.	DESCRIPTION
C-0	COVER SHEET & SHEET INDEX
C-1	EXISTING CONDITIONS
C-2	PROPOSED SITE PLAN
C-3	GRADING, DRAINAGE AND EROSION CONTROL PLAN 1
C-3A	STREAM CROSSING PLAN & CROSS SECTIONS
C-3B	STREAM CROSSING WATER CONTROL PLAN
C-4	GRADING, DRAINAGE AND EROSION CONTROL PLAN 2
C-5	UTILITY PLAN 1
C-6	UTILITY PLAN 2
C-7	DETAILS 1
C-8	DETAILS 2
C-9	DETAILS 3
C-10	DETAILS 4

LEGEND

ADA = AMERICANS WITH DISABILITIES ACT APPROX = APPROXIMATE DS = DOOR SILL PVC = POLYVINYL CHLORIDE C.I.P. = CAST IRON PIPE C.M.P. = CORRUGATED METAL PIPE ELEV = ELEVATION INV = INVERT LP = LIGHT POLE IRON PIPE FOUND	1100	1' EXISTING CONTOUR LINE 5' EXISTING CONTOUR LINE APPROXIMATE PROPERTY LINE EDGE OF WOODS EDGE OF ASPHALT EDGE OF GRAVEL FENCE RETAINING WALL WETLAND BUFFER ZONE FLAGGED WETLAND BOUNDAR DRAINAGE LINE
FENCE POST	——— E ———	APPROX. ELECTRIC
BOUND FOUND BENCHMARK	——— W—————————————————————————————————	APPROX. WATER SUPPLY APPROX. GAS SUPPLY
WETLAND FLAG	— т —	APPROX. TELEPHONE
CONIFEROUS TREE	s	APPROX. SEWER
DECIDUOUS TREE	SFM	APPROX. SEWER FORCE MAIN

RECORD OWNER HAPPY MEDIUM LLC BOOK 6944 PAGE 62 PARCEL ID:022/416.F-0010-0000.0

TETRAHYDRA AGTEK LLC 123B SEAVIEW AVE SOUTH YARMOUTH, MA 02664

EARTHWORK, GRADING AND ACCESSIBILITY NOTES

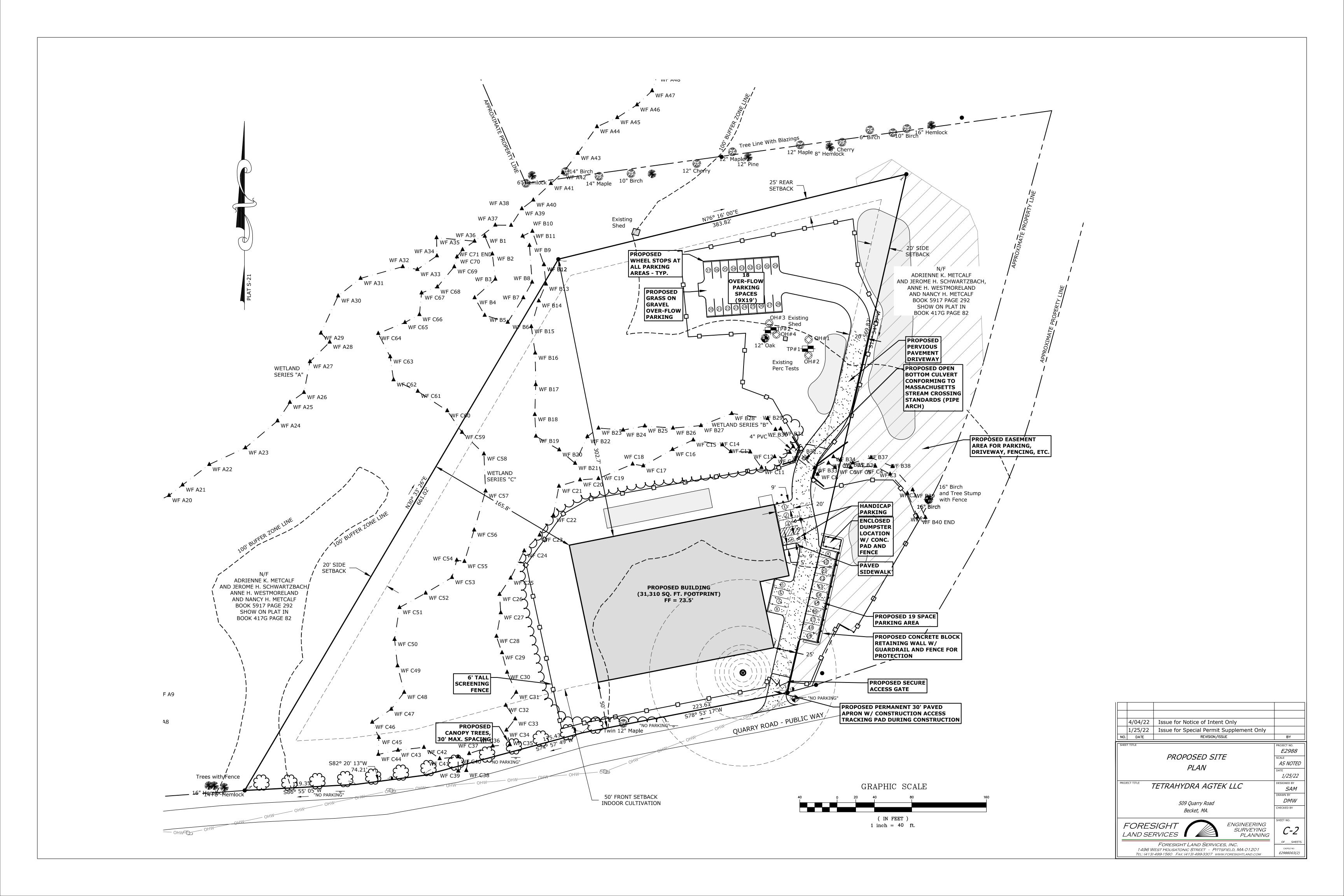
- 1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ASSURE THAT ALL EXCAVATIONS AND OTHER SITEWORK COMPLY WITH CURRENT OSHA STANDARDS AND TRENCH SAFETY REGULATIONS.
- AREAS BEYOND THE LIMITS OF PROPOSED WORK THAT ARE DISTURBED BY CONTRACTOR'S WORK SHALL BE
- RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER. ACCESS TO THE SITE FOR EMERGENCY VEHICLES MUST BE PRESERVED AT ALL TIMES.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING OF TRENCHES AND EXCAVATIONS DURING
- 5. ALL DEMOLISHED MATERIALS, DEBRIS, PAVEMENT, CURBING, TREES AND STUMPS DESIGNATED FOR REMOVAL, SURPLUS MATERIALS, ETC, SHALL BE HANDLED AND DISPOSED OF OFF-SITE BY THE CONTRACTOR AT HIS EXPENSE, AT IN ACCORDANCE WITH ALL APPLICABLE MUNICIPAL, STATE AND FEDERAL REGULATIONS.
- 6. ALL WORK WITHIN ANY PUBLIC RIGHT OF WAY (I.E. MUNICIPAL, STATE, ETC) SHALL BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS OF THE AGENCY HAVING
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED WORK PERMITS FOR WORK WITHIN A
- 8. ALL WORK INCLUDED IN THE CONDITIONS OF APPROVAL FOR LOCAL, STATE AND/OR FEDERAL PERMITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CONFORMED TO THROUGHOUT CONSTRUCTION.
- 9. UNLESS OTHERWISE NOTED, ALL MATERIALS AND WORK METHODS SHALL COMPY WITH THE MASS. DOT
- 1. CONTRACTOR SHALL ASSURE THAT THERE IS POSITIVE SURFACE DRAINAGE AWAY FROM BUILDINGS IN ALL
- 2. REFER TO AND COORDINATE THE SITEWORK WITH THE ARCHITECTURAL PLANS FOR GRADING AROUND BUILDINGS, RAMPS, STEPS, DOORWAYS, FOUNDATIONS, AND RELATED CONSTRUCTION.
- CONTRACTOR SHALL PERFORM THE SITEWORK SO AS TO COMPLY WITH THE APPLICABLE REQUIREMENTS OF MASS. ARCHITECTURAL ACCESS BOARD, 521 CMR.
- 2. EXCEPT WHERE NOTED, IT IS THE DESIGN INTENTION THAT EXTERIOR DOORWAYS SHALL BE ACCESSIBLE AND THAT WALKWAYS APPROACHING BUILDINGS SHALL BE ACCESSIBLE
- 3. UNLESS OTHERWISE NOTED OR PERMITTED, ACCESSIBLE WALKWAYS SHALL BE CONSTRUCTED WITH A MAXIMUM RUNNING SLOPE OF 5.0% (LAYOUT TO SLOPE OF 4.5% TO ACCOUNT FOR CONSTUCTION
- TOLERANCES), AND A MAXIMUM CROSS PITCH OF 2.0% (LAYOUT TO 1.5% FOR CONSTRUCTION TOLERANCES 4. PER 521 CMR 22.3.1 (EXCEPTION), FOR STREETS AND WAYS WHICH HAVE NATURAL TOPOGRAPHY IN EXCESS OF 5%, SIDEWALKS MAY BE PERMITTED TO HAVE RUNNING SLOPES IN EXCESS OF 5% WITHOUT REQUIRING A
- 5. CURB RAMPS SHALL COMPLY WITH THE APPLICABLE MASS. AAB (521 CMR 21 ET SEO) REGULATIONS. WHERE APPLICABLE, CURB RAMPS SHALL ALSO CONFORM TO MASS. DOT STANDARDS.
- 6. UNLESS OTHERWISE NOTED, HANDICAP PARKING SPACES AND ACCESS AISLES SHALL BE CONSTRUCTED WITH A MAXIMUM SLOPE IN ANY DIRECTION OF 2.0% (521 CMR 23.4). LAYOUT SHOULD BE TO SLOPE OF 1.5% TO ALLOW FOR CONSTRUCTION TOLERANCES.
- HANDICAP RAMPS SHALL BE CONSTRUCTED TO COMPLY WITH 521 CMR 24. THE MAXIMUM SLOPE SHALL BE 1:12 (8.33%) WITHOUT ANY ALLOWANCE FOR EXCEEDANCE.) THE MAXIMUM RISE OF ANY RUN SHALL NOT EXCEED 30" AND THE MAXIMUM LENGTH OF ANY RUN BETWEEN LANDINGS SHALL NOT EXCEED 30'.
- 8. THE SPOT GRADES SHOWN ON THE PLANS ARE PROVIDED TO GIVE GUIDANCE TO THE CONTRACTOR ABOUT THE DESIGN INTENT FOR ACCESSIBILITY. CONTRACTOR SHALL LAYOUT AND CONSTRUCT THE WORK TO COMPLY WITH THE MASS AAB REQUIREMENTS. ANY DEVIATIONS NOTED IN THE LAYOUT THAT WOULD AFFECT ACCESSIBLITY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND CIVIL ENGINEER.
- 9. ANY PORTION OF THE CONSTRUCTED WORK WHICH EXCEEDS THE MAXIMUM SLOPES SPECIFIED IN 521 CMR WILL BE CONSIDERED NON-COMPLIANT; THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR REMEDIATING THE NON-COMPLIANT WORK TO BRING IT WITHIN THE MASS. AAB REQUIREMENTS.

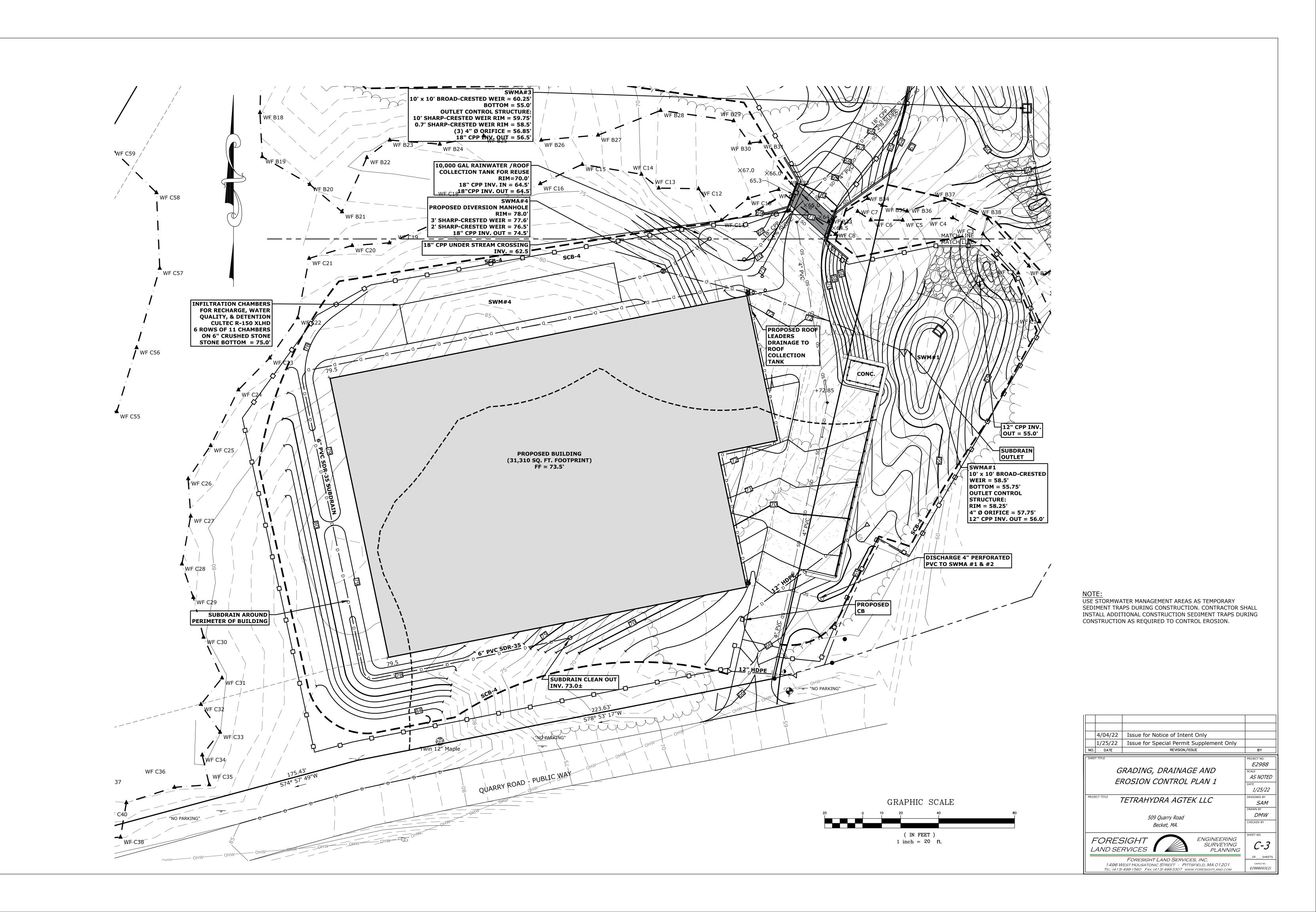
GENERAL NOTES REGARDING SITE UTILITIES:

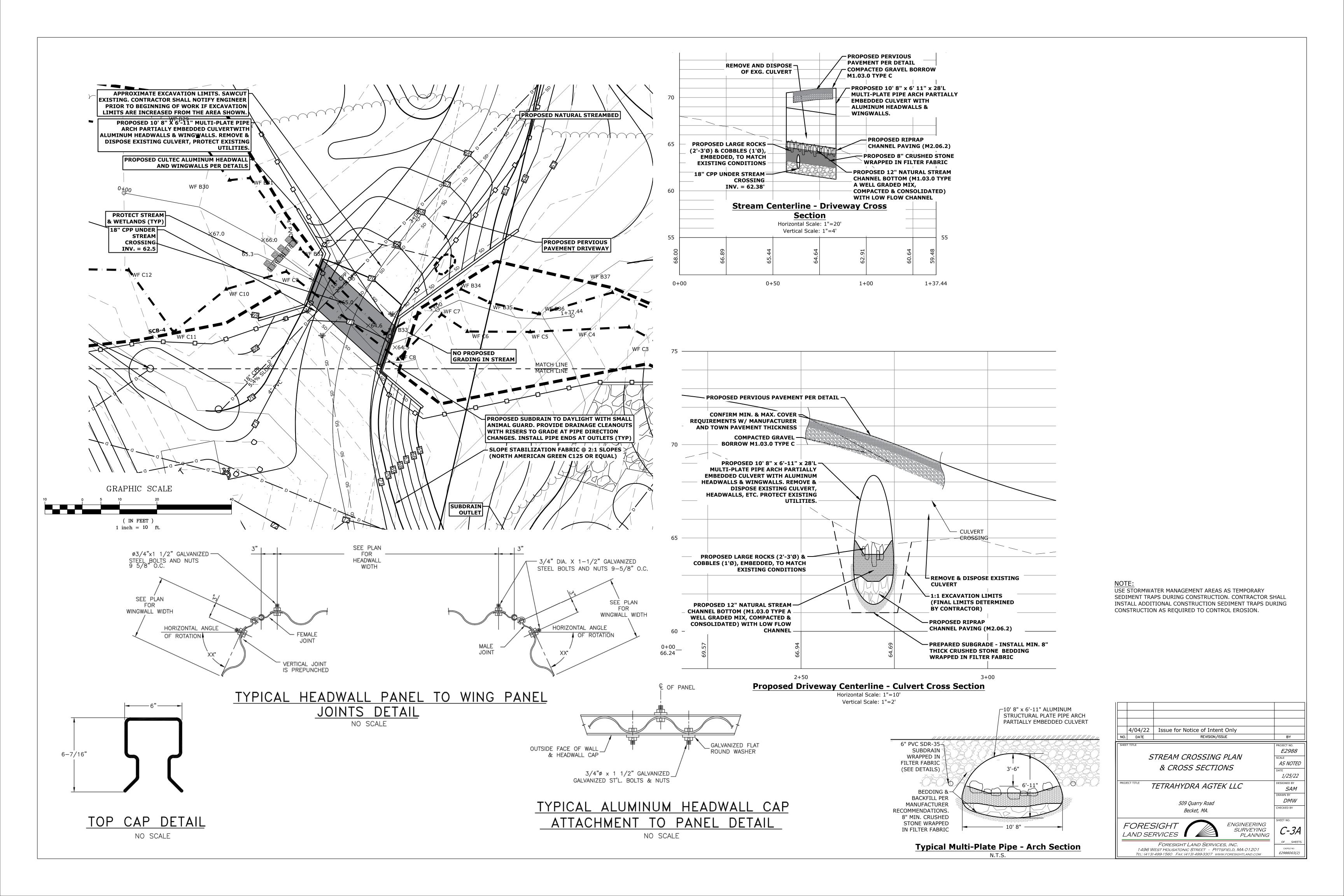
- 1. PRIOR TO CONSTRUCTION, SITEWORK CONTRACTOR SHALL NOTIFY THE DIG SAFE CENTER, PLUS THE MUNICIPAL AND/OR STATE PUBLIC WORKS DEPARTMENT AND PRIVATE UTILITIES TO ALLOW FOR THEM TO FIELD LOCATE THE FACILITIES IN THE VICINITY OF THE WORK. UPDATE THE NOTIFICATIONS TO DIG SAFE, ETC AS REQUIRED DURING CONSTRUCTION
- 2. LOCATE AND PROTECT ALL UTILITIES AND STRUCTURES TO REMAIN. LOCATE AND PROPERLY DECOMMISSION EXISTING UTILITIES TO BE DISCONTINUED. ANY UNREPORTED UNDERGROUND UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER FOR A DETERMINATION ABOUT WHETHER OR NOT THEY SHOULD BE REPAIRED OR MAY BE DECOMMISSIONED. COORDINATE SITEWORK WITH OTHER TRADES.
- 4. COORDINATE EXACT LOCATION, ELEVATION & SIZE OF ALL FOUNDATION PENETRATIONS FOR ALL UTILITIES
- WITH CONTRACTORS: M/E/P/FP/T 5. REFER TO PLANS AND SPECIFICATIONS FOR REQUIREMENTS FOR EXPLORATORY TEST PITS AND OTHER
- PRE-CONSTRUCTION EXPLORATIONS. 6. PIPING SUBJECT TO PLUMBING CODE: SITEWORK CONTRACTOR SHALL INSTALL SEWER, WATER AND BUILDING DRAINAGE SERVICE LINES SUBJECT TO THE MASS. STATE PLUMBING CODE TO WITHIN TEN FEET (10') FROM THE BUILDING FOUNDATION. PLUMBING CONTRACTOR SHALL MAKE THE FINAL INSTALLATION AND CONNECTION OF THE SEWER, WATER AND BUILDING DRAINAGE SERVICE LINES WITHIN THE FINAL TEN FEET TO THE BUILDING FOUNDATION. SITEWORK CONTRACTOR SHALL EXCAVATE, BED AND BACKFILL THE TRENCHES TO THE BUILDING FOUNDATION FOR THIS PIPING. (NOTE: BUILDING DRAINAGE LINES INCLUDES STORM DRAIN LINES SUCH AS ROOF LEADERS THAT ORIGINATE INSIDE THE BUILDING; IT DOES NOT INCLUDE FOUNDATION DRAINS, ROOF LEADERS FROM DOWNSPOUTS THAT ORIGINATE OUTSIDE THE BUILDING, OR SURFACE DRAINS OUTSIDE THE BUILDING, WHICH ARE SITEWORK COMPONENTS TO BE
- INSTALLED BY THE SITEWORK CONTRACTOR.) 7. FIRE PROTECTION PIPING SUBJECT TO FIRE CODE: SITEWORK AND FIRE PROTECTION CONTRACTOR SHALL COORDINATE THE INSTALLATION AND TESTING UNDER NFPA STDS (NFPA24, ETC) OF THE FIRE LINES AND APPURTENANCES FROM THE WATER MAIN TO THE BUILDING. SITEWORK CONTRACTOR SHALL EXCAVATE, BED AND BACKFILL THE TRENCHES AND FURNISH THE PIPING TO THE BUILDING FOUNDATION FOR THIS
- 7A. ANY FIRE SERVICE MAIN INSTALLATION AND TESTING WORK SUBJECT TO NFPA-24 SHALL BE WITNESSED BY THE LICENSED FIRE PROTECTION CONTRACTOR. UPON COMPLETION OF THE WORK INCLUDING FLOW AND PRESSURE TESTS, SITEWORK CONTRACTOR SHALL SUBMIT THE COMPLETED "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING."
- 8. COORDINATE SITEWORK WITH UTILITY COMPANIES:
- ELECTRIC, COMMINICATIONS, WIFI, TV, GAS, ETC. 9. COORDINATE WITH ELECTRICAL CONTRACTOR (EC) FOR SITE LIGHTING: EXCAVATE, BED AND BACKFILL FOR CONDUITS, HANDHOLES, VAULTS, AND APPURTENANCES (FURNISHED AND INSTALLED BY EC); FURNISH AND INSTALL PRECAST CONC. POLE BASES WITH EMBEDDED ANCHOR BOLTS AND SWEEPS PROVIDED BY
- 10. COORDINATE WITH MEP CONTRACTOR (MC) FOR CAST-IN-PLACE CONC PADS FOR TRANSFORMER, GENERATOR, CONDENSERS, AIR HANDLERS, ETC; MC TO SUPPLY ANY EMBEDDED ITEMS TO SITEWORK CONTRACTOR FOR INSTALLATION.
- 11. STORM DRAINAGE, EROSION AND SEDIMENTATION CONTROL, AND WETLANDS PROTECTION: REFER TO EROSION AND SEDIMENTATION CONTROL PLANS AND SPECIFICATIONS. PERFORM ALL SITEWORK AS REQUIRED TO REMAIN IN COMPLIANCE THROUGHOUT CONSTRUCTION AND IN ACCORDANCE WITH APPLICABLE PERMITS, INCLUDING BUT NOT LIMITED TO WETLANDS PROTECTION ACT, AND CONSTRUCTION GENERAL PERMIT UNDER THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) ISSUED BY
- 12. WATER AND SEWER LINES SHALL BE SEPARATED A MINIMUM OF 10' HORIZONTALLY AND A MINIMUM OF 18" VERTICALLY AT CROSSINGS. SEE DETAIL.

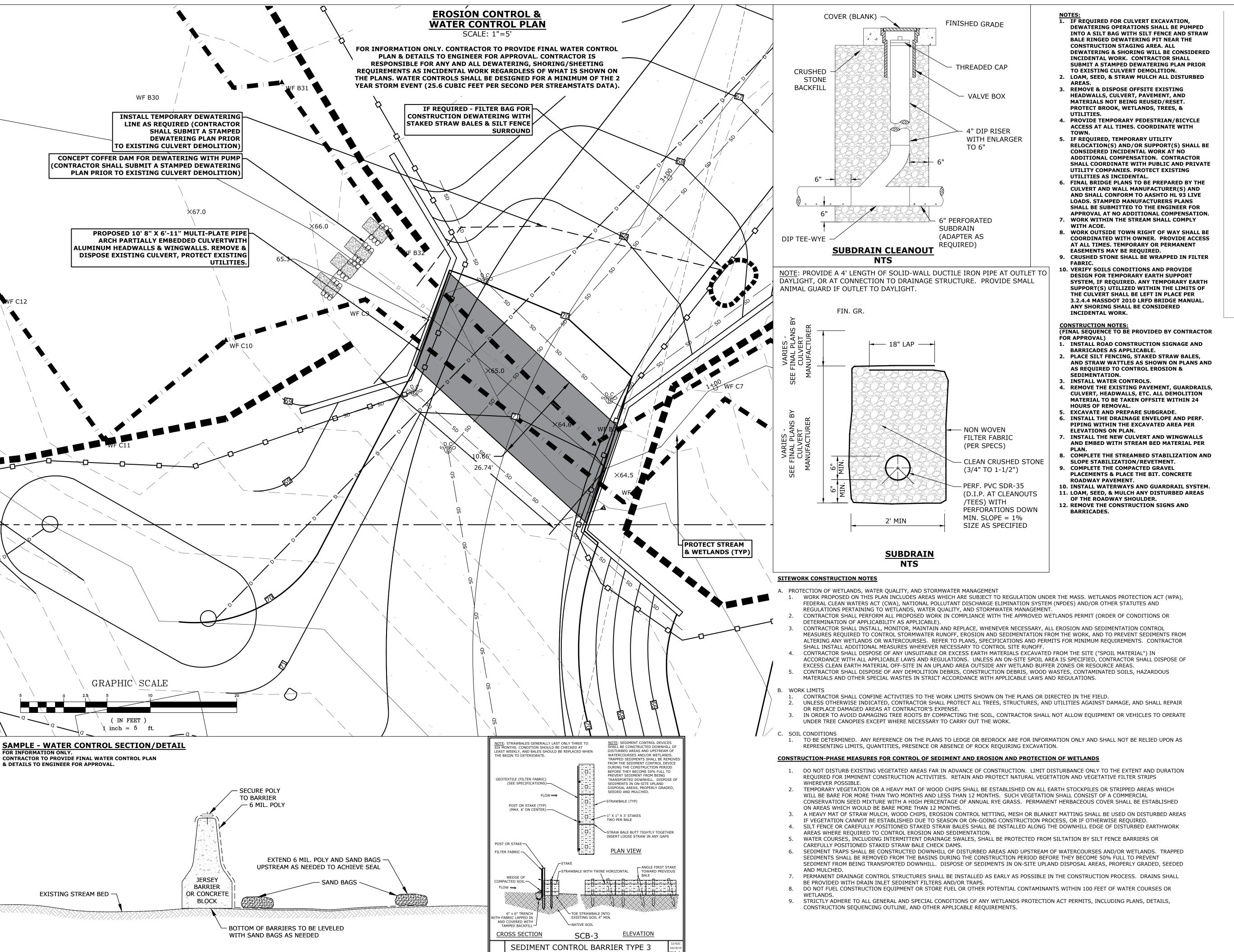
	4/04/22	Issue for Notice of Intent Only	
	1/25/22	Issue for Special Permit Supple	ement Only
NO.	DATE	REVISION/ISSUE	BY
	T TITLE	COVER SHEET AND SHEET INDEX TETRAHYDRA AGTEK LL	PROJECT NO. E2988 SCALE AS NOTES DATE 1/25/22 DESIGNED BY
	1	509 Quarry Road Becket, MA.	DRAWN BY DMW CHECKED BY
_	ORES		GINEERING SURVEYING PLANNING
		FORESIGHT LAND SERVICES, INC EST HOUSATONIC STREET - PITTSFIELD, 499-1560 FAX: (413) 499-3307 WWW.FORESI	MA 01201 CADFILE NO:

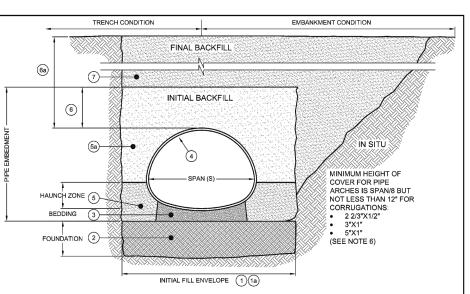












BACKFILL REQUIREMENTS FOLLOW THE GUIDELINES OF ASTM A 798.

-) MINIMUM EMBANKMENT WIDTH (in feet) FOR INITIAL FILL ENVELOPE SHALL BE: 3.0S BUT NO LESS THAN S + 4'0" (TABLE #1 & FIG 2). THE FOUNDATION UNDER THE PIPE ARCH AND SIDE BACKFILL SHALL BE ADEQUATE TO SUPPORT THE LOADS ACTING UPON IT (6.1).
- BEDDING MATERIAL SHALL BE A RELATIVELY LOOSE MATERIAL THAT IS ROUGHLY SHAPED TO FIT THE BOTTOM OF THE PIPE ARCH, AND A DEPTH OF ½" PER FOOT OF FILL HEIGHT (6a), 24" MAX (FIG. #3). THE MAXIMUM PARTICLE SIZE IS NOT TO EXCEED 3" IN DIAMETER (7.1). WIDTH OF BEDDING TO BE EXTENTS OF THE INVERT OF THE PIPE ARCH. CORRUGATED STEEL PIPE ARCH (CSPA) [HEL-COR PIPE ARCH].
- HAUNCH ZONE MATERIAL SHALL BE HAND SHOVELED OR SHOVEL SLICED INTO PLACE TO ALLOW FOR PROPER COMPACTION (10.3). 59 INITIAL BACKFILL FOR PIPE EMBEDMENT TO MEET GW, GP, GM, GC .SW OR SP UNIFIED SOIL CLASSIFICATION SYSTEM PER ASTM D2487, OR APPROVED EQUIAL, AND COMPACTED TO 90% STANDARD PROCTOR PER ASTM D698. MAXIMUM PARTICLE SIZE NOT TO EXCEED 3" (9.2). ALL LIFTS SHOULD BE PLACED IN A CONTROLLED MANNER, 6" TO 12" IN DEPTH AND COMPACTED BEFORE ADDING THE NEXT LAYER, AND NO MORE THAN ONE LIFT SIDE-TO-SIDE DIFFERENCE SHALL BE PERMITTED (10.1).
-) INITIAL BACKFILL ABOVE PIPE ARCH MAY INCLUDE ROAD BASE MATERIAL (AND RIGID PAVEMENT IF APPLICABLE).
- a) TOTAL HEIGHT OF COMPACTED COVER FOR CONVENTIONAL HIGHWAY LOADS IS MEASURED FROM TOP OF PIPE ARCH TO BOTTOM OF FLEXIBLE PAVEMENT OR TOP OF RIGID PAVEMENT (ASTM A796, 11.1).
- FINAL BACKFILL MATERIAL SELECTION AND COMPACTION REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD (11.1, 11.2).
- TES:

 GEOTEXTILE SHOULD BE CONSIDERED FOR USE TO PREVENT SOIL MIGRATION INTO VARYING SOIL TYPES (PROJECT ENGINEER).

 FOR MULTIPLE BARREL INSTALLATIONS THE RECOMMENDED MINIMUM STANDARD SPACING BETWEEN PARALLEL PIPE ARCH RUNS

 SHALL BE NO LESS THAN 24" FOR SPANS UP TO 48". FOR SPANS > 48", THE MINIMUM SPACING IS SPAN/2 OR 36", WHICHEVER IS LESS

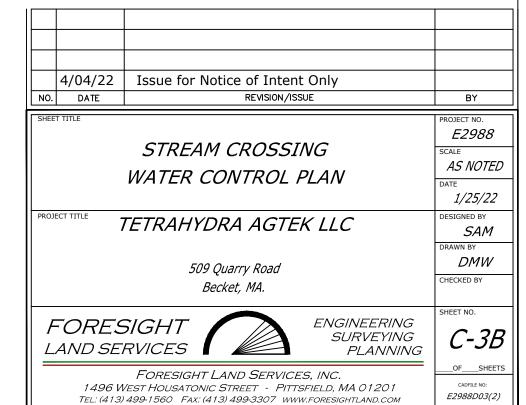
CSP-STANDARD BACKFILL-PIPE ARCH-ASTM

CNTECH* www.ContechES.com

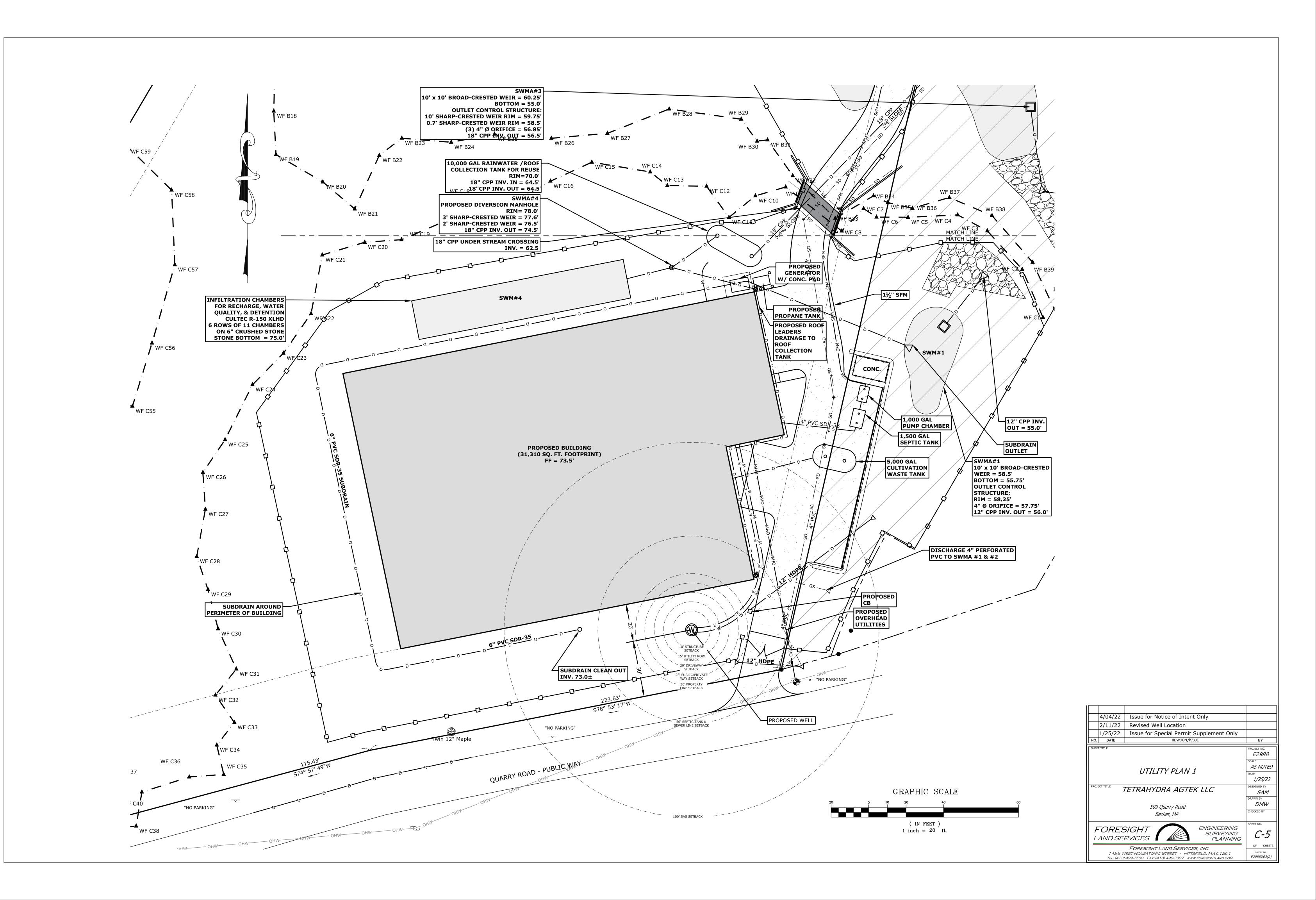
STANDARD BACKFILL DETAIL PIPE SOLUTIONS

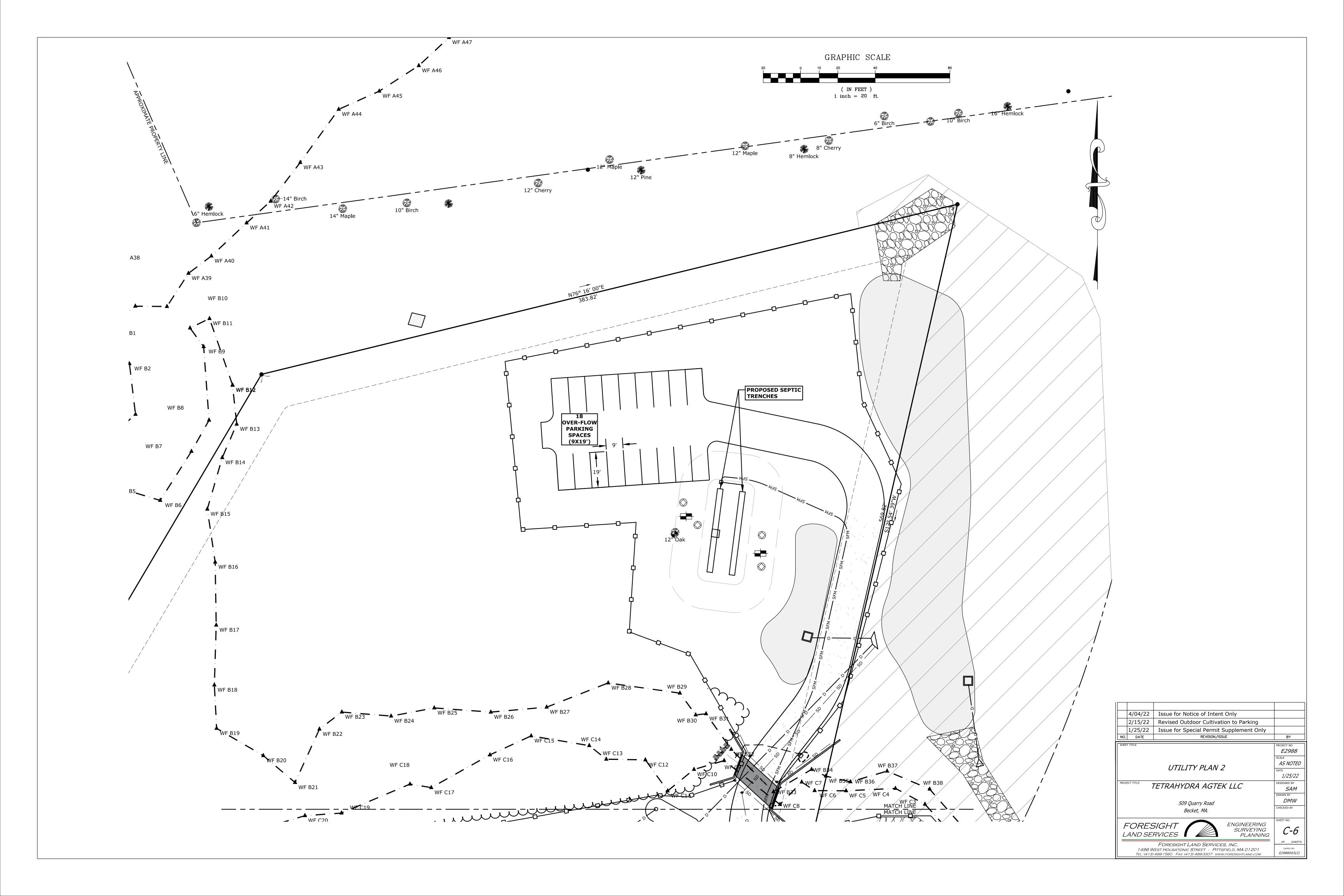
243 - CSP PIPE ARCH

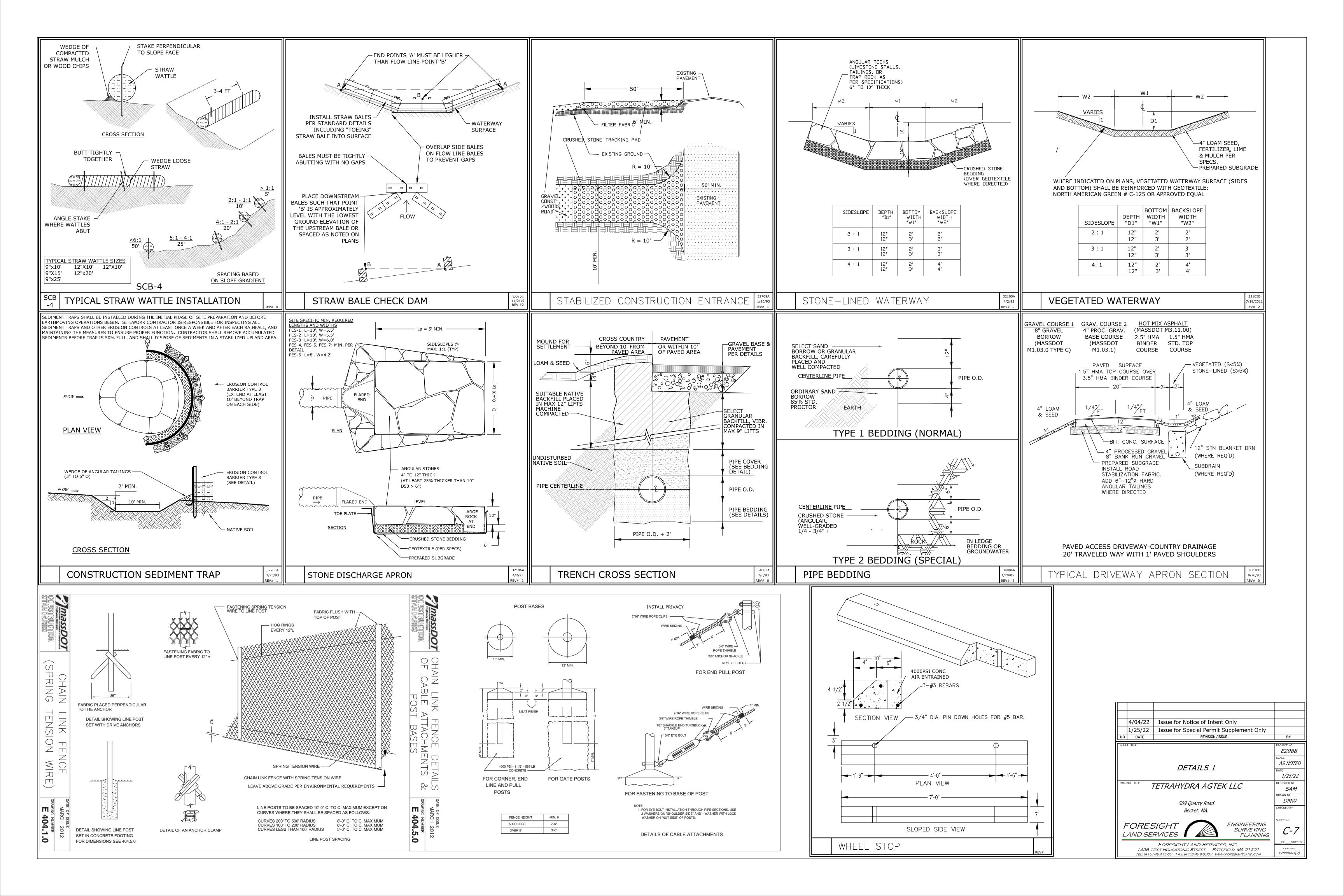
USE STORMWATER MANAGEMENT AREAS AS TEMPORARY SEDIMENT TRAPS DURING CONSTRUCTION. CONTRACTOR SHALL INSTALL ADDITIONAL CONSTRUCTION SEDIMENT TRAPS DURING CONSTRUCTION AS REQUIRED TO CONTROL EROSION.

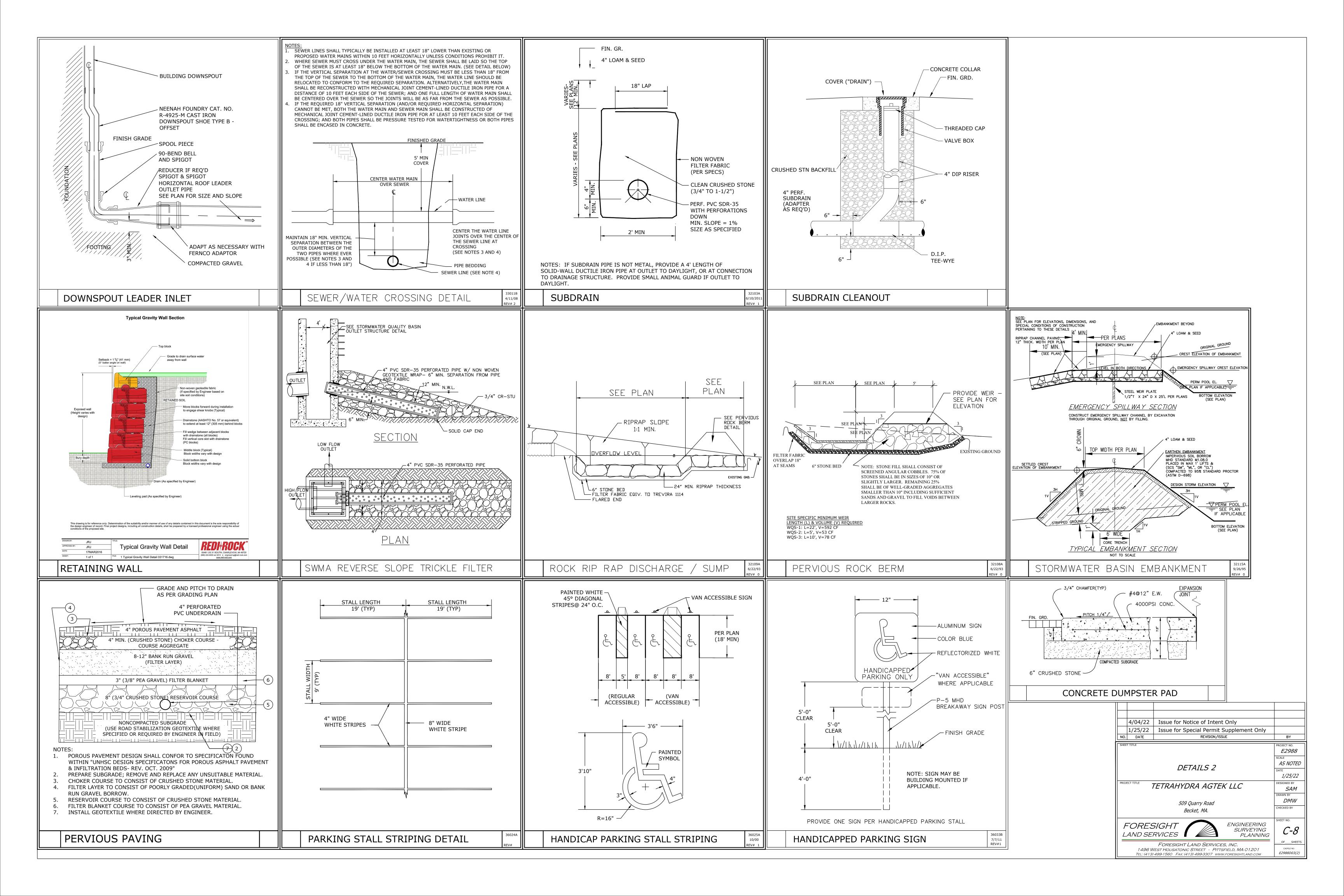


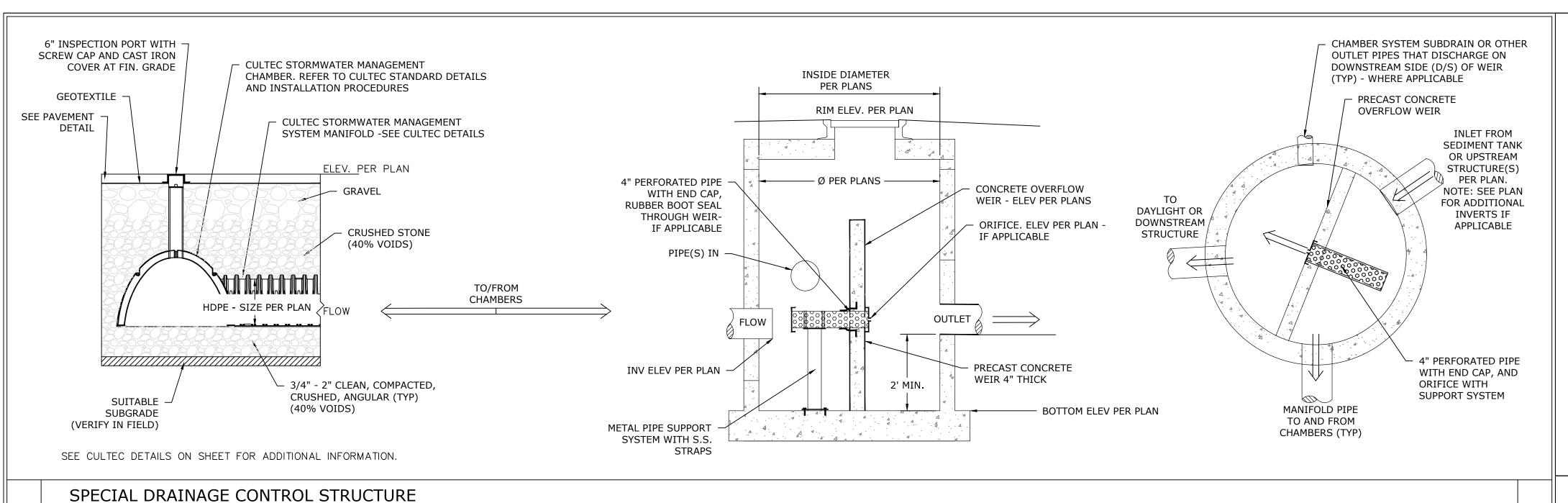


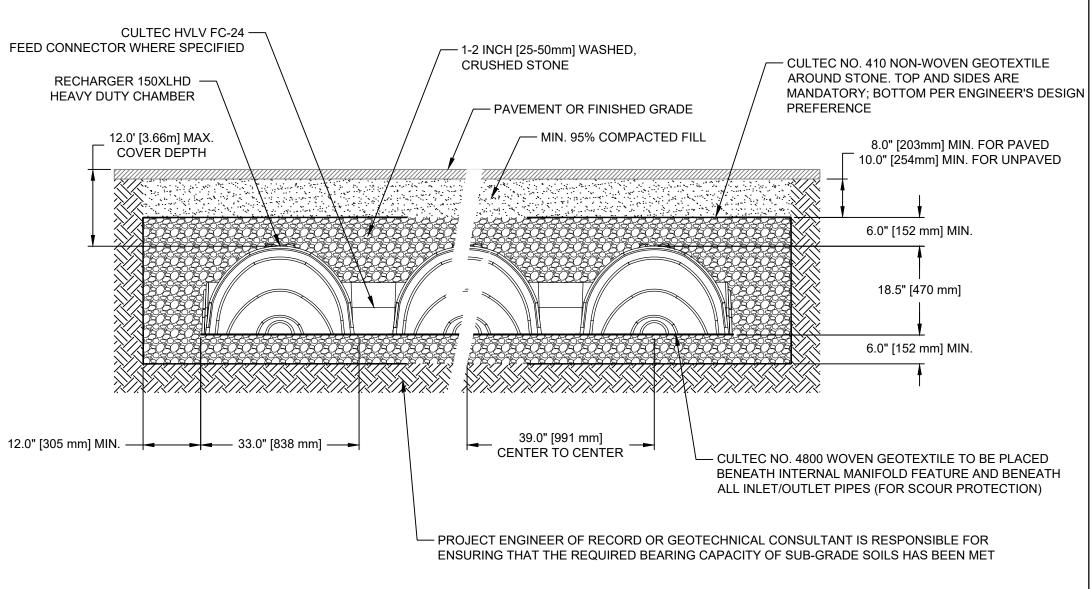












CULTEC RECHARGER® 150XLHD SPECIFICATIONS

CULTEC RECHARGER® 150XLHD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION. RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

- 1. THE CHAMBERS SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR AND BLUE
- 3. THE CHAMBER SHALL BE ARCHED IN SHAPE.
- 4. THE CHAMBER SHALL BE OPEN-BOTTOMED
- 5. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS.
- 6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER 150XLHD SHALL BE 18.5 INCHES (470 mm) TALL, 33 INCHES (838 mm) WIDE AND 11 FEET (3.35 m) LONG, THE INSTALLED LENGTH OF A JOINED RECHARGER 150XLHD SHALL BE 10.25 FEET (3.12 m).
- 15" (375 mm) SMOOTH-WALL PVC.
- 8. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV® FC-24 FEED CONNECTORS TO CREATE AN INTERNAL MANIFOLD. THE NOMINAL INSIDE DIMENSIONS OF EACH SIDE PORTAL SHALL BE 8.5 INCHES (216 mm) HIGH BY 12 INCHES (304 mm) WIDE. MAXIMUM ALLOWABLE OUTER DIAMETER (O.D.) PIPE SIZE IN THE SIDE PORTAL IS 10.25 INCHES (260 mm).
- 9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV® FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 24.2 INCHES (615
- 10. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 150XLHD CHAMBER SHALL BE 2.650 FT³ / FT (0.246 m³ / m) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED RECHARGER 150XLHD SHALL BE 27.16 FT3 / UNIT (0.77 m³ / UNIT) - WITHOUT
- 11. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR SHALL BE 0.913 FT³ / FT (0.085 m³ / m) - WITHOUT STONE.
- 12. THE RECHARGER 150XLHD CHAMBER SHALL HAVE THIRTY DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF
- 13. THE RECHARGER 150XLHD CHAMBER SHALL HAVE 20 CORRUGATIONS.
- 14. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, SHALL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE END PLATES CANNOT BE USED WITH THIS UNIT.
- 15. THE RECHARGER 150XLRHD STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE ENDWALLS.
- 16. THE RECHARGER 150XLSHD STARTER UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 10 INCHES (254 mm) HIGH X 20.5 INCHES (521 mm) WIDE.
- 17. THE RECHARGER 150XLIHD INTERMEDIATE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY OPEN ENDWALL AND ONE PARTIALLY FORMED INTEGRAL ENDWALL WITH A LOWER TRANSFER OPENING OF 10 INCHES (254 mm) HIGH X 20.5 INCHES (521 mm) WIDE.
- 18. THE RECHARGER 150XLEHD END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS.
- 19. THE HVLV® FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE RECHARGER 150XLHD AND ACT AS CROSS FEED CONNECTIONS.
- 20. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS. 21. THE CHAMBER SHALL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN

THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR

- 22. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION.
- 23. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.
- 24. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS
- 25. THE CHAMBER SHALL BE DESIGNED AND MANUFACTURED TO MEET THE MATERIAL AND STRUCTURAL REQUIREMENTS OF IAPMO PS 63-2019, INCLUDING RESISTANCE TO AASHTO H-10 AND H-20 HIGHWAY LIVE LOADS, WHEN INSTALLED IN ACCORDANCE
- 26. THE CHAMBER SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATION OF NSAI IRISH AGREEMENT BOARD CERTIFICATE FOR CULTEC ATTENUATION AND INFILTRATION.
- 27. MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12 FEET (3.65 m).

WITH CULTEC'S INSTALLATION INSTRUCTIONS.

CULTEC HVLV® FC-24 FEED CONNECTOR PRODUCT SPECIFICATIONS

CULTEC HYLY FC-24 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR CULTEC RECHARGER 150XLHD STORMWATER

CHAMBER PARAMETERS

- 2. THE CHAMBER SHALL BE VACUUM THERMOFORMED OF HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) WITH A BLACK INTERIOR

- 5. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV FC-24 FEED CONNECTOR SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 mm) WIDE

- 8 THE HVLV FC-24 FEED CONNECTOR MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO OPEN END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.
- 9. THE CHAMBER SHALL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL INTRUSION INTO THE STONE.

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
- 3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M).
- METHOD.
- 6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.

- 9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM D4533 TESTING METHOD. 10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751 TESTING METHOD.
- 11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD.

CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED CONNECTORS UTILIZING THE CULTEC BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE.

METHOD.

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT.
- (203-775-4416 OR 1-800-428-5832)
- THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM
- 4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20% PER ASTM D4632
- (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN OF 960 X 1,096
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN OF 2,740 X 2, 740
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10% STRAIN OF 4,800 X 4,800
- TESTING METHOD.
- 12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING
- 14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM D4355 TESTING

- AND BLUE EXTERIOR.
- 3. THE CHAMBER SHALL BE ARCHED IN SHAPE
- 4. THE CHAMBER SHALL BE OPEN-BOTTOMED
- AND 24.2 INCHES (614 mm) LONG.
- 6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-24 FEED CONNECTOR SHALL BE 0.913 FT3 / FT (0.085 m³ / m) WITHOUT STONE.

- 10. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

CULTEC NO. 410™ NON-WOVEN GEOTEXTILE

- 4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING
- 5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD.
- 7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM D4833 TESTING

- 12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD.

GEOTEXTILE PARAMETERS

- TESTING METHOD.
- LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
- 10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180 LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
- 13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491

1. THE CHAMBERS SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832)

- 8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM D6241 TESTING METHOD.

- 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM D4355 TESTING METHOD.

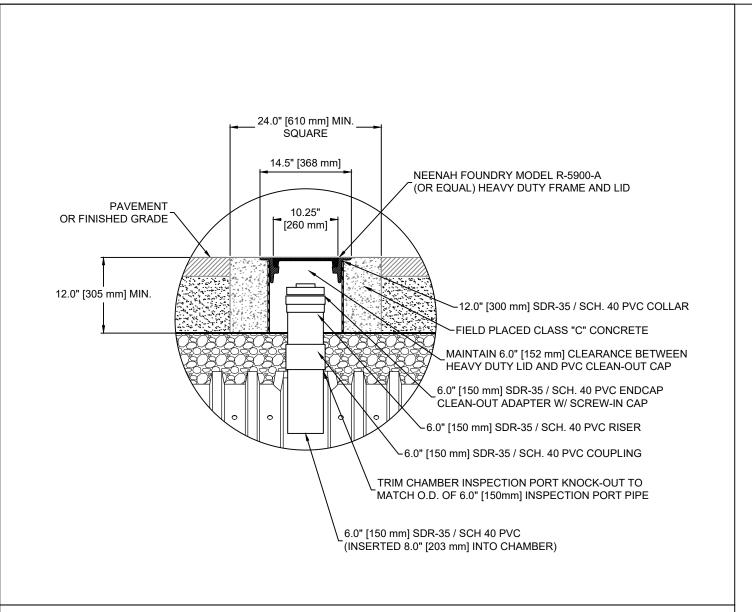
CULTEC NO. 4800™ WOVEN GEOTEXTILE

MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A

THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.

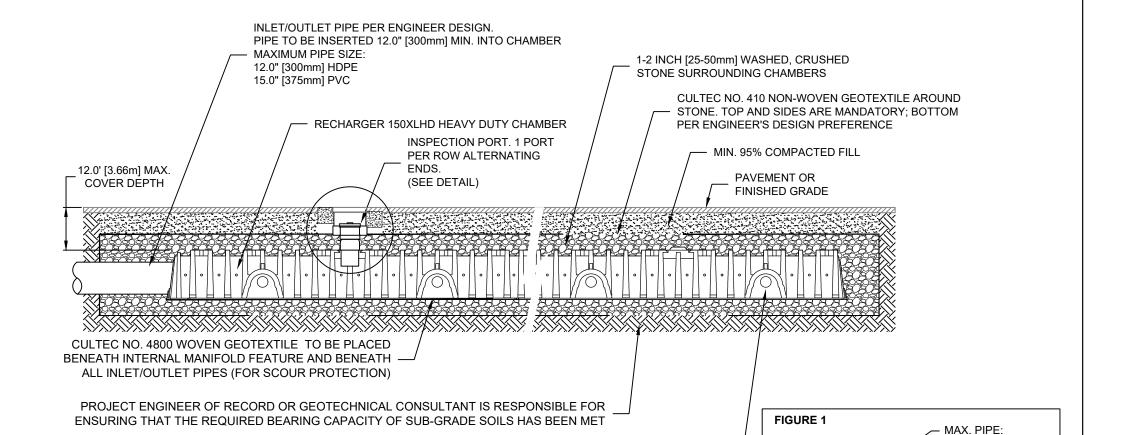
- THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X 5,070 LBS/FT
- (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD.
- LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING METHOD. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241
- 11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE (0.425 MM) PER ASTM D4751 TESTING METHOD.

PAVEMENT OR FINISHED GRADE PAVEMENT SUB-BASE (WHEN APPLICABLE) MINIMUM 95% COMPACTED FILL CULTEC NO. 410 NON-WOVEN GEOTEXTILE AROUND STONE. TOP AND SIDES MANDATORY, BOTTOM PER ENGINEER'S DESIGN PREFERENCE 6.0 INCH [152 mm] MIN. DEPTH OF 1-2 INCH [25-50 mm] WASHED, CRUSHED STONE BELOW CHAMBERS 10.0' [3.0m] MIN. 6.0 INCH [152 mm] MIN. DEPTH OF CULTEC NO. 4800 WOVEN GEOTEXTILE 1-2 INCH [25-50 mm] WASHED, CRUSHED PLACED BENEATH INLET PIPES STONE ABOVE CHAMBERS CULTEC HVLV FC-24 FEED CONNECTOR WHERE SPECIFIED CULTEC RECHARGER 150XLHD 7.5' [2.29m] MIN. HEAVY-DUTY CHAMBER CULTEC NO. 4800 WOVEN GEOTEXTILE PLACED BENEATH FEED CONNECTORS 12.0 INCH [305 mm] MIN. WIDTH OF 1-2 INCH [25-50 mm] WASHED, CRUSHED STONE BORDER SURROUNDING ALL CHAMBERS - PIPE PER ENGINEER DESIGN. PIPE TO BE INSERTED 12.0 INCHES [305 mm] MIN. INTO CHAMBER. MAXIMUM PIPE SIZE: 12.0" [300 mm] HDPE 15.0" [375 mm] PVC



CULTEC RECHARGER 150XLHD HEAVY DUTY CROSS SECTION

CULTEC RECHARGER 150XLHD HEAVY DUTY PLAN VIEW



CULTEC INTERNAL MANIFOLD - INSPECTION PORT DETAIL

SIDE PORTAL TO BE CUT IN FIELD TO ALLOW FOR HVLV FC-24 FEED

WITHIN 1/4" [6 mm] TOLERANCE OF SIDE PORTAL TRIM GUIDELINE

CONNECTOR OR STORM PIPE AS NEEDED (SEE FIGURE 1). CUT SHALL BE -

10" [250 mm] HDPE

10" [250 mm] PVC

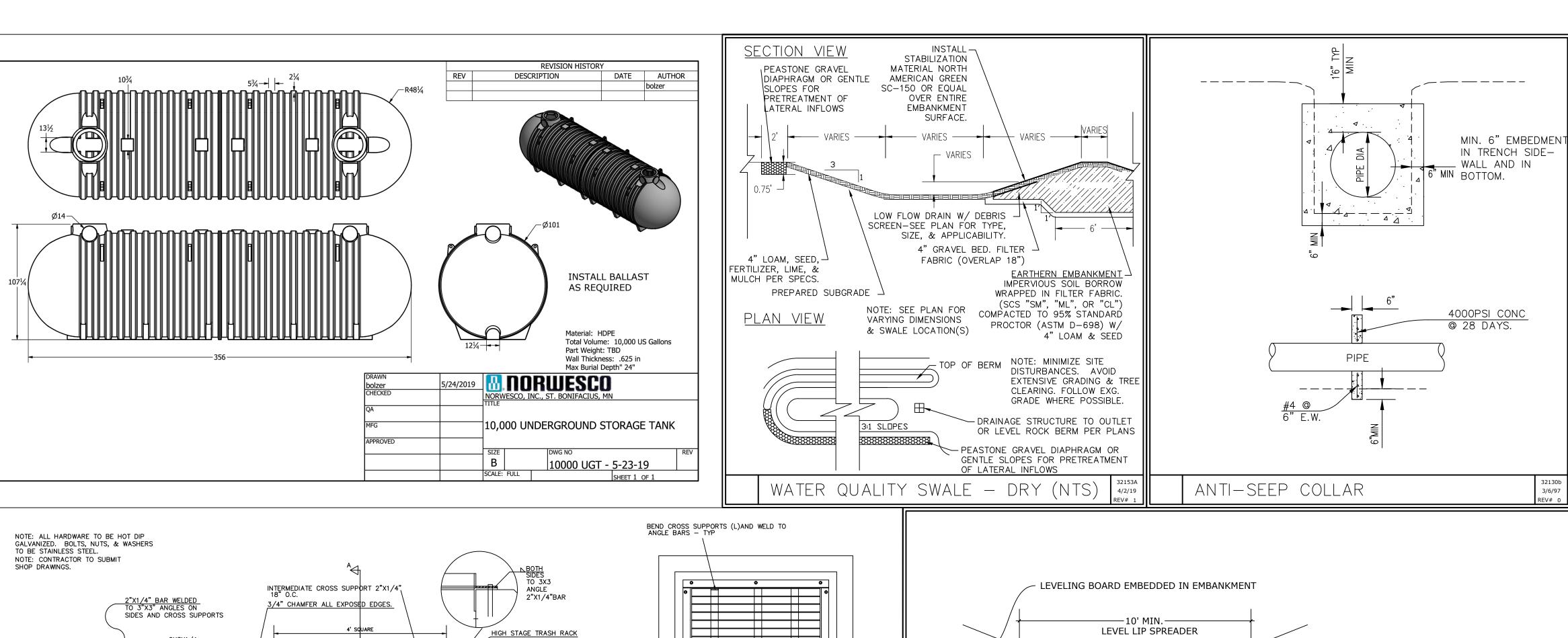
ZOOM OF SIDE PORTAL SHOWING MAX. PIPE

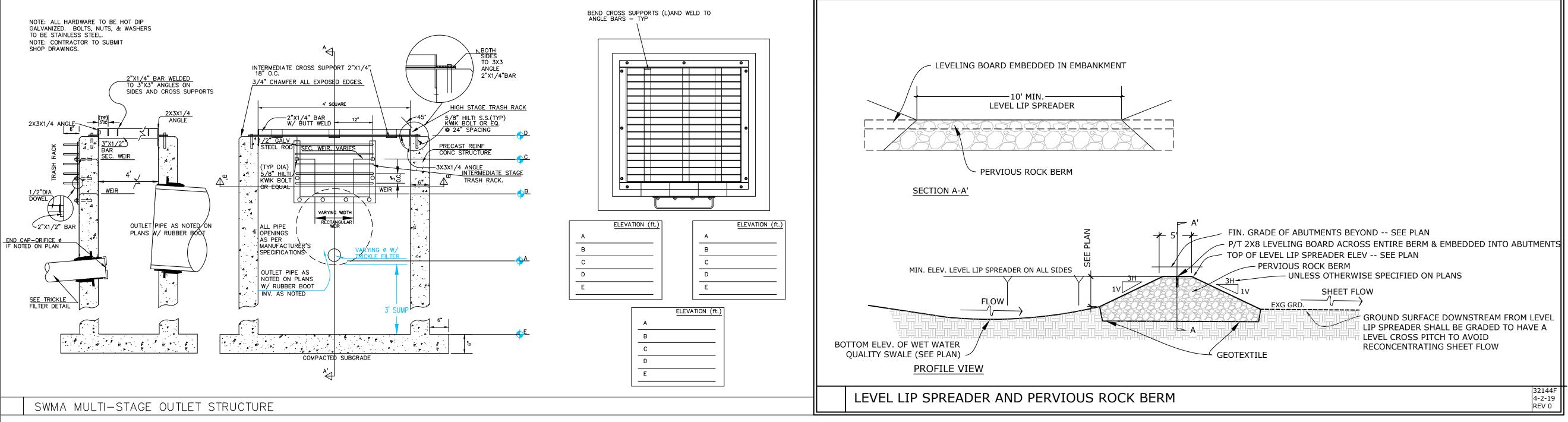
INSPECTION PORT - ZOOM DETAIL

4/04/22 | Issue for Notice of Intent Only |1/25/22 | Issue for Special Permit Supplement Only REVISION/ISSUE DATE E2988 AS NOTED DETAILS 3 1/25/22 TETRAHYDRA AGTEK LLC SAM DMW509 Quarry Road CHECKED BY Becket, MA. **ENGINEERING FORESIGHT** SURVEYING LAND SERVICES PLANNING

> FORESIGHT LAND SERVICES, INC. 1496 West Housatonic Street - Pittsfield, MA 01201

TEL: (413) 499-1560 FAX: (413) 499-3307 WWW.FORESIG





	4/04/22 1/25/22	Issue for Notice of Intent Only Issue for Special Permit Supplement Onl	ly
NO.	DATE	REVISION/ISSUE	BY
SHEE	T TITLE	DETAILS 4	PROJECT NO. <i>E2988</i> SCALE <i>AS NOTE</i> DATE 1/25/22
PROJ	ECT TITLE .	TETRAHYDRA AGTEK LLC 509 Quarry Road	DESIGNED BY SAM DRAWN BY DMW CHECKED BY
	Becket, MA.		
	ORES AND SE	SURVEYING SURVEYING	G C-11
_		FORESIGHT LAND SERVICES, INC. /EST HOUSATONIC STREET - PITTSFIELD, MA 01201 499-1560 FAX: (413) 499-3307 WWW.FORESIGHTLAND.COM	OFSHEE cadfile no: E2988D03(2